

duties similar to those of school teachers. Other jobs requiring the computer skills of some librarians include webmasters or web developers, database specialists, and systems analysts.

Sources of Additional Information

Information on librarianship, including information on scholarships or loans, is available from the American Library Association. For a listing of accredited library education programs, check their homepage:

☛ American Library Association, Office for Human Resource Development and Recruitment, 50 East Huron St., Chicago, IL 60611. Internet: <http://www.ala.org>

For information on a career as a special librarian, write to:

☛ Special Libraries Association, 1700 18th St. NW., Washington, DC 20009.

Information on graduate schools of library and information science can be obtained from:

☛ Association for Library and Information Science Education, P.O. Box 7640, Arlington, VA 22207. Internet: <http://www.sils.umich.edu/ALISE>

For information on a career as a law librarian, scholarship information, and a list of ALA-accredited schools offering programs in law librarianship, contact:

☛ American Association of Law Libraries, 53 West Jackson Blvd., Suite 940, Chicago, IL 60604. Internet: <http://www.ala.org>

For information on employment opportunities as a health sciences librarian, scholarship information, credentialing information, and a list of MLA-accredited schools offering programs in health sciences librarianship, contact:

☛ Medical Library Association, 6 N. Michigan Ave., Suite 300, Chicago, IL 60602. Internet: <http://www.mlanet.org>

Information on acquiring a job as a librarian with the Federal Government may be obtained from the Office of Personnel Management through a telephone-based system. Consult your telephone directory under U.S. Government for a local number or call (912) 757-3000; TDD (912) 744-2299. That number is not toll free and charges may result. Information also is available from their Internet site: <http://www.usajobs.opm.gov>

Information concerning requirements and application procedures for positions in the Library of Congress can be obtained directly from:

☛ Human Resources Office, Library of Congress, 101 Independence Ave. SE., Washington, DC 20540-2231.

State library agencies can furnish information on scholarships available through their offices, requirements for certification, and general information about career prospects in the State. Several of these agencies maintain job hotlines reporting openings for librarians.

State departments of education can furnish information on certification requirements and job opportunities for school librarians.

Many library science schools offer career placement services to their alumni and current students. Some allow non-affiliated students and jobseekers to use their services.

Library Technicians

(O*NET 31505)

Significant Points

- Training ranges from on-the-job to a bachelor's degree.
- Experienced library technicians can advance by obtaining a Master of Library Science degree.

Nature of the Work

Library technicians help librarians acquire, prepare, and organize material, and assist users in finding information. Technicians in small libraries handle a range of duties; those in large libraries



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usually specialize. As libraries increasingly use new technologies—such as CD-ROM, the Internet, virtual libraries, and automated databases—the duties of library technicians will expand and evolve accordingly. Library technicians are assuming greater responsibilities, in some cases taking on tasks previously performed by librarians. (See the statement on librarians elsewhere in the *Handbook*.)

Depending on the employer, library technicians can have other titles, such as library technical assistants. Library technicians direct library users to standard references, organize and maintain periodicals, prepare volumes for binding, handle interlibrary loan requests, prepare invoices, perform routine cataloguing and coding of library materials, retrieve information from computer databases, and supervise support staff.

The widespread use of computerized information storage and retrieval systems has resulted in technicians handling more technical and user services, such as entering catalogue information into the library's computer, that were once performed by librarians. Technicians assist with customizing databases. In addition, technicians instruct patrons how to use computer systems to access data. The increased use of automation has reduced the amount of clerical work performed by library technicians. Many libraries now offer self-service registration and circulations with computers, decreasing the time library technicians spend manually recording and inputting records.

Some library technicians operate and maintain audiovisual equipment, such as projectors, tape recorders, and videocassette recorders, and assist users with microfilm or microfiche readers. They also design posters, bulletin boards, or displays.

Those in school libraries encourage and teach students to use the library and media center. They also help teachers obtain instructional materials and assist students with special assignments. Some work in special libraries maintained by government agencies, corporations, law firms, advertising agencies, museums, professional societies, medical centers, and research laboratories, where they conduct literature searches, compile bibliographies, and prepare abstracts, usually on subjects of particular interest to the organization.

Working Conditions

Technicians answer questions and provide assistance to library users. Those who prepare library materials sit at desks or computer terminals for long periods and can develop headaches or eyestrain from working with video display terminals. Some duties, like calculating circulation statistics, can be repetitive and boring. Others, such as performing computer searches using local and regional library networks and cooperatives, can be interesting and challenging.

Library technicians in school libraries work regular school hours. Those in public libraries and college and university (academic) libraries also work weekends, evenings and some holidays. Library technicians in special libraries usually work normal business hours, although they often work overtime as well.

Library technicians usually work under the supervision of a librarian, although they work independently in certain situations.

Employment

Library technicians held about 72,000 jobs in 1998. Most worked in school, academic, or public libraries. Some worked in hospitals and religious organizations. The Federal Government, primarily the Department of Defense and the Library of Congress, and State and local governments also employed library technicians.

Training, Other Qualifications, and Advancement

Training requirements for library technicians vary widely, ranging from a high school diploma to specialized postsecondary training. Some employers hire individuals with work experience or other training; others train inexperienced workers on the job. Other employers require that technicians have an associate or bachelor's degree. Given the rapid spread of automation in libraries, computer skills are needed for many jobs. Knowledge of databases, library automation systems, on-line library systems, on-line public access systems, and circulation systems is valuable.

Some 2-year colleges offer an associate of arts degree in library technology. Programs include both liberal arts and library-related study. Students learn about library and media organization and operation, and how to order, process, catalogue, locate, and circulate library materials and work with library automation. Libraries and associations offer continuing education courses to keep technicians abreast of new developments in the field.

Library technicians usually advance by assuming added responsibilities. For example, technicians often start at the circulation desk, checking books in and out. After gaining experience, they may become responsible for storing and verifying information. As they advance, they may become involved in budget and personnel matters in their department. Some library technicians advance to supervisory positions and are in charge of the day-to-day operation of their department.

Job Outlook

Employment of library technicians is expected to grow about as fast as the average for all occupations through 2008. Some job openings will result from the need to replace library technicians who transfer to other fields or leave the labor force. Similar to other fields, willingness to relocate enhances an aspiring library technician's job prospects.

The increasing use of library automation is expected to spur job growth among library technicians. Computerized information systems have simplified certain tasks, such as descriptive cataloguing, which can now be handled by technicians instead of librarians. For instance, technicians can now easily retrieve information from a central database and store it in the library's computer. Although budgetary constraints could dampen employment growth of library technicians in school, public, and college and university libraries, libraries sometimes use technicians to perform some librarian duties in an effort to stretch shrinking budgets. Growth in the number of professionals and other workers who use special libraries should result in relatively fast employment growth among library technicians in those settings.

Earnings

Median annual earnings of library technicians in 1998 were \$21,730. The middle 50 percent earned between \$16,500 and \$27,340. The lowest 10 percent earned less than \$12,610 and the highest 10 percent earned more than \$33,370. Median annual earnings in the

industries employing the largest numbers of library technicians in 1997 are shown below:

Local government, except education and hospitals	\$22,200
Colleges and universities	21,400
Elementary and secondary schools	18,300

Salaries of library technicians in the Federal Government averaged \$29,700 in 1999.

Related Occupations

Library technicians perform organizational and administrative duties. Workers in other occupations with similar duties include library assistants, information clerks, record clerks, medical record technicians, and title searchers.

Sources of Additional Information

Information about a career as a library technician can be obtained from:

☛ Council on Library/Media Technology, P.O. Box 951, Oxon Hill, MD 20750. Internet: <http://library.ucr.edu/COLT>

For information on training programs for library/media technical assistants, write to:

☛ American Library Association, Office for Human Resource Development and Recruitment, 50 East Huron St., Chicago, IL 60611. Internet: <http://www.ala.org>

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State departments of education can furnish information on requirements and job opportunities for school library technicians.

School Teachers—Kindergarten, Elementary, and Secondary

(O*NET 31304, 31305, and 31308)

Significant Points

- Public school teachers must have at least a bachelor's degree, complete an approved teacher education program, and be licensed.
- Many States offer alternative licensing programs to attract people into teaching, especially for hard-to-fill positions.
- Employment growth for secondary school teachers will be more rapid than for kindergarten and elementary school teachers due to student enrollments, but job outlook will vary by geographic area and subject specialty.

Nature of the Work

Teachers act as facilitators or coaches, using interactive discussions and "hands-on" learning to help students learn and apply concepts